

Understanding the Challenges of Bipolar Disorder Throughout the Female Life Cycle

A Free, One-Hour CME/CNE/CEP/NASW/CCMC/CPE Satellite Broadcast

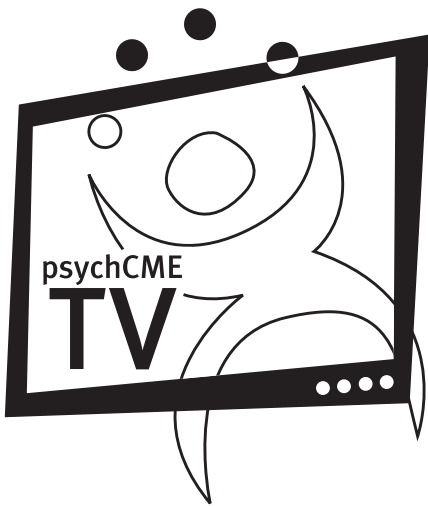
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Credit Expiration Date: October 27, 2005

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FACULTY

Deborah T. Combs Cantrell, MD, PA

Zachary Stowe, MD

psychCME Chair and Moderator

Prakash S. Masand, MD

Syllabus and Course Guide

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Information for Participants

Statement of Need

Treatment of bipolar disorder in women presents many challenges for clinicians. Current pharmacological options for bipolar disorder include lithium, anticonvulsants (AED), and atypical antipsychotics. However, these classes of drugs vary in their symptom relief and adverse event profiles, especially in female patients across all age ranges. Do atypical antipsychotics affect metabolic risk and cause weight gain? Can anticonvulsants adversely affect female reproductive function? Does the symptom relief offered by these agents outweigh the risks? Reproductive health and function should be analyzed to determine what effect these classes of drugs have on the menstrual cycle, birth control, pregnancy, postpartum health, and conditions like polycystic ovarian syndrome (PCOS). Treatment guidelines that maximize symptom relief with minimal potential risk are needed to optimize outcomes and minimize relapse in female patients. In this evidence-based psychCME TV activity, the experts will evaluate each therapeutic option by comparing symptom relief to adverse event profiles.

Activity Goal

To evaluate potential therapeutic options available to treat bipolar disorder in women based on associated risk-benefit assessments.

Learning Objectives

At the end of this CE activity, participants should be able to:

- Review the symptom relief provided by lithium, atypical antipsychotics, and AEDs in female patients with bipolar disorder.
- Discuss the metabolic risk and potential weight gain posed by atypical antipsychotics compared to AEDs.
- Analyze the effect of AEDs on female health and reproductive function (menstrual abnormalities, birth control, PCOS, pregnancy, postpartum) and on bone health.
- Implement a standardized approach to treating women with bipolar disorder to effectively relieve symptoms and minimize risk and adverse events.

Target Audience

Physicians, nurses, psychologists, social workers, certified case managers, pharmacists, and other healthcare professionals with an interest in mental health.

Credit Information

CME Credit (Physicians)

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psychCME TV Faculty Bios & Disclosures

Deborah T. Combs Cantrell, MD, PA

Dr. Cantrell is the Co-Director of the North Texas Epilepsy Center, Director of the Epilepsy Monitoring Unit of Baylor Hospital, and the Director of the Epilepsy and Women's Clinic. She serves on the Pharmacy and Therapeutics Committee and the Clinical Research Committee at Baylor Hospital. She is a reviewer for the *Journal of Clinical Neuropharmacology*. She is certified by the American Board of Psychiatry and Neurology in neurology.

Dr. Cantrell completed her undergraduate degree at the University of Texas at Arlington. She received her medical degree from the University of Texas Medical Branch in Galveston. Her neurology residency was at the University of Texas Medical Branch in Galveston. She completed her fellowship in clinical neurophysiology, intensive monitoring, and epilepsy at the University of Texas in Houston. She was on the faculty and was director of the epilepsy monitoring units at the University of Texas Medical Branch in Galveston and at the University of Texas Southwestern in Dallas for many years.

Dr. Cantrell's primary research interests include epilepsy and pregnancy, epilepsy surgery, and antiepileptic drugs. She has authored many original research articles, review articles and book chapters. She is considered a leading authority in women's issues and epilepsy.

Zachary Stowe, MD

Dr. Stowe is Director of the Women's Mental Health Program, and directs the Electrophysiology Research Laboratory at Emory University. Dr. Stowe is an Associate Professor of Psychiatry and Behavioral Sciences and Gynecology and Obstetrics at Emory University School of Medicine in Atlanta, Georgia.

He received his medical degree from the University of Texas Medical Branch at Galveston and completed his residency in psychiatry at Duke University Medical Center. After completing a fellowship in psychopharmacology at Emory, Dr. Stowe established the Women's Mental Health Program. The focus Dr. Stowe's clinical research is the use of psychotropic medications during pregnancy and lactation, the psychobiology of mood disorders during pregnancy and the postpartum period, and the impact of maternal mental illness on fetal and neonatal exposures. In addition, he leads an active laboratory research involving stress and medication in rodents with differing behavioral paradigms and/or altered metabolic capacity (e.g., enzymes, binding proteins).



Dr. Stowe has given numerous professional presentations, is a member of including a special conference on women's mental health at the National Institute of Mental Health. He has received a number of honors and awards including the Gerald L. Klerman Young Investigator Award from the National Depressive and Manic-Depressive Association and the American Psychiatric Association/SmithKline Beecham Young Faculty Award. He is a member of the American Psychiatric Association, the National Alliance of the Mentally Ill, a board member of Depression After Delivery, and is a member of NIH study section.

Prakash S. Masand, MD, psychCME Chair

Dr. Masand is Consulting Professor of Psychiatry at Duke University Medical Center in Durham, North Carolina. He is the section editor for *Current Psychiatry Reports* and has published more than 200 articles, abstracts, and book chapters. Dr. Masand is the psychCME Chair, host of psychCME TV, and editor of psychCME *REPORTS*.

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Dr. Stowe has disclosed that he receives grants/research support from GlaxoSmithKline, National Institutes of Health, Pfizer Inc., and Wyeth Pharmaceuticals. He is on the speakers bureaus of Eli Lilly and Company, GlaxoSmithKline, Pfizer Inc., and Wyeth Pharmaceuticals, and serves as a consultant to GlaxoSmithKline, Pfizer Inc., and Wyeth Pharmaceuticals.

Dr. Masand has disclosed that he receives grant and research support from AstraZeneca, Bristol-Myers Squibb, Forest Laboratories, GlaxoSmithKline, Ortho-McNeil, Janssen Pharmaceutica, and Wyeth. He is a consultant to Bristol-Myers Squibb, Forest Laboratories, GlaxoSmithKline, Health Care Technology, Janssen Pharmaceutica, Organon, Pfizer Inc., and Wyeth. He is on the speakers bureaus of Abbott Laboratories, AstraZeneca, Bristol-Myers Squibb, Eli Lilly and Company, Forest Laboratories, GlaxoSmithKline, Janssen Pharmaceutica, Novartis, Pfizer Inc., and Wyeth. Dr. Masand owns stock in Bristol-Myers Squibb and psychCME, Inc.

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Understanding the Challenges
of Bipolar Disorder Throughout
the Female Life Cycle
October 27, 2004

psychCME TV Learning Objectives

- I. Review the symptom relief provided by lithium, atypical antipsychotics, and AEDs in female patients with bipolar disorder



psychCME TV Learning Objectives

- II. Discuss the metabolic risk and potential weight gain posed by atypical antipsychotics compared to AEDs

psychCME TV Learning Objectives

- III. Analyze the effect of AEDs on female health and reproductive function (menstrual abnormalities, birth control, PCOS, pregnancy, postpartum) and on bone health

psychCME TV Learning Objectives

- IV. Implement a standardized approach to treating women with bipolar disorder to effectively relieve symptoms and minimize risk and adverse events

Summary of Lifetime Prevalence Rates

Diagnosis	Number of Studies	Range of Rates (%)
BP I	13	0.0 - 1.7
BP II	9	0.2 - 3.0
Bipolar spectrum disorders	7	2.6 - 6.5

Angst J, *J Affect Disord.* 1998 Sep;50(2-3):143-51.

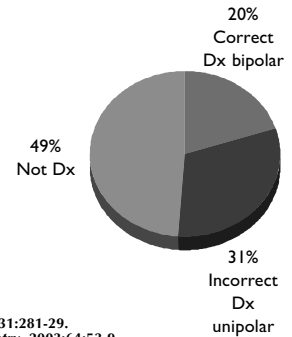


Factors Associated with Poorer Prognosis in Women

- Higher rates of depressive, mixed episodes, type II
- Longer delays in treatment
- Late onset (ages 45-49)

Early Diagnosis Difficult

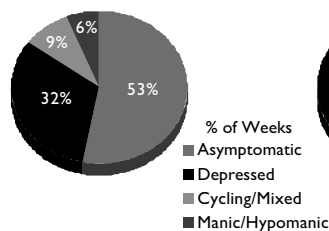
- 73% alternative explanation for symptoms¹
- 31% diagnosed unipolar²
- > 1/3 sought help > 10 yrs before accurate diagnosis



1. Lish JD, et al. *J Affect Disord.* 1994;31:281-29.
2. Hirschfeld RMA, et al. *J Clin Psychiatry.* 2003;64:53-9.

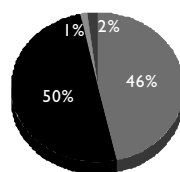
Bipolar Disorder Symptoms Are Chronic and Predominantly Depressive

146 Bipolar I Patients
Followed 12.8 Years



Judd, et al. *Arch Gen Psychiatry.* 2002;59:530-7.

86 Bipolar II Patients
Followed 13.4 Years



Judd, et al. *Arch Gen Psychiatry.* 2003;60:261-9.

Treatment Options in Bipolar Depression

Mood Stabilizers

- Lithium
- Lamotrigine
- Divalproex
- Carbamazepine
- ECT
- Antipsychotics
- Quetiapine
- Olanzapine

Antidepressants

- Fluoxetine + Olanzapine*
- Bupropion
- SSRIs
- Venlafaxine
- MAOIs
- TCAs

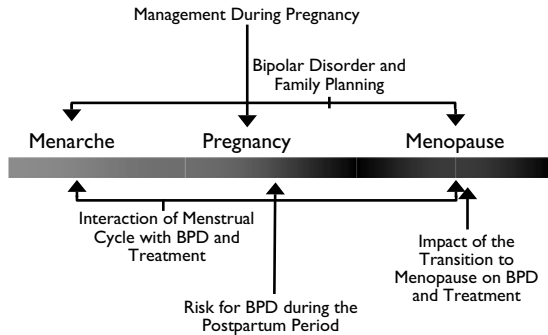
Alternative Treatments

- Pramipexole
- Sleep deprivation
- Phototherapy
- Thyroid hormones
- Psychotherapy
- Modafinil
- Stimulants
- Psychotherapy

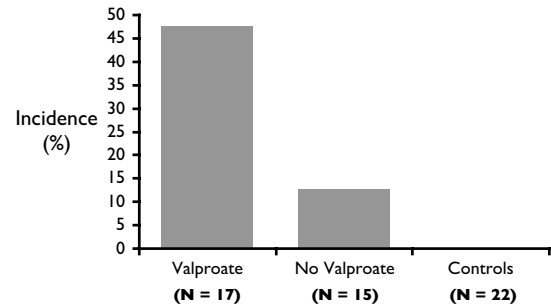
* FDA approved for bipolar depression

Jefferson JW, Grise JH. *Textbook of Psychiatry*, Washington, DC, American Psychiatric Press, 1994; Post RM, et al. *Neuropsychopharmacology*. 1998; Worthington JJ III, Pollack MH. *Am J Psychiatry*. 1996; Amsterdam J. *J Clin Psychopharmacol*. 1998; Barbini B, et al. *Psychiatry Res*. 1998; Wirz-Justice A, et al. *Biol Psychiatry*. 1999; Stoll AL, et al. *Arch Gen Psychiatry*. 1999; Bowden CL. *J Clin Psychiatry*. 1998; Tohen M, et al. *Arch Gen Psychiatry*. 2003;60:1079-88; Calabrese JR, et al. *J Clin Psychiatry*. 1999;60:79-88; Goldberg JF, et al. *Am J Psychiatry*. 2004;161:564-6.

Bipolar Disorder Across the Female Reproductive Cycle



Menstrual Abnormalities in Women with Bipolar Disorder



O'Donovan C, et al. *J Clin Psychiatry*. 2002;63:322-330.

AED Effects on Sex Hormones

- P450-inducing AEDs increase SHBG
- P450-inducing AEDs increase metabolism sex hormones
- Elevation in androgens with P450-inhibiting AEDs

Contraception

- P450-inducing AEDs increase metabolism and binding of hormones
- 6% failure rate of OCP with inducing AED
- P450-inducing AEDs increase failure rate of oral, subdermal, and intramuscularly administered contraceptives
- Use of barrier techniques advocated in conjunction with P450-inducing AEDs

Effects of Antiepileptic Drugs on Oral Contraception Efficacy

Reduces Efficacy

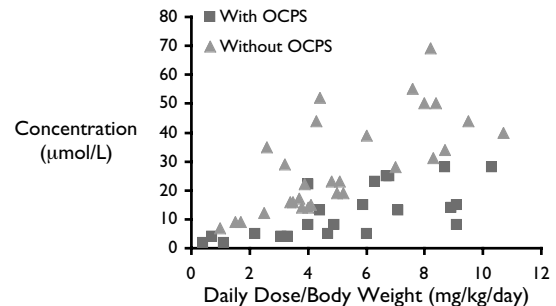
- Barbiturates
- Carbamazepine
- Phenytoin
- Tiagabine
- Topiramate
- Oxcarbazepine

No Effect on Efficacy

- Felbamate
- Gabapentin
- Lamotrigine
- Valproate

Morrell MJ. *Neurology*. 1998;51(suppl 4):S21-S27.
Hachad H, et al. *Ther Drug Monit*. 2002;24:91-103.

Lamotrigine Concentrations With and Without OCPS



Sabers A, et al. *Neurology*. 2003.

PCOS

Definition and Clinical Presentation

- The association of hyperandrogynism with chronic anovulation in the absence of specific underlying diseases of the adrenal and pituitary glands
- Hyperandrogynism
 - Hirsutism; acne, alopecia; menstrual disturbances (amenorrhea, oligomenorrhea, or dysfunctional uterine bleeding)
- Hyperinsulinemia and peripheral insulin resistance
 - Obesity

Polycystic Ovary Syndrome (PCOS) vs. Polycystic Ovaries (PCO)

PCOS

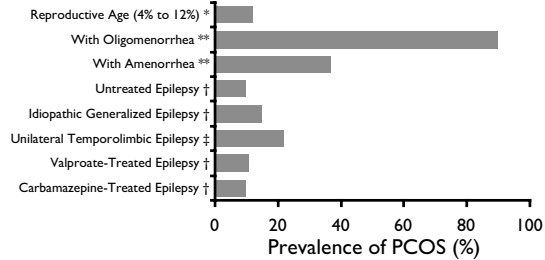
- A metabolic disorder characterized by ovulatory dysfunction, hyperandrogenism, and exclusion of other endocrinopathies

PCO

- The presence of multiple ovarian cysts 2-8 mm in diameter and increased ovarian stroma; this condition is not intrinsically pathologic

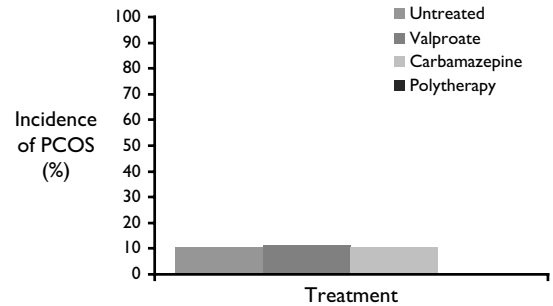
Duncan S. *Epilepsia*. 2001;42(suppl 3):60-65.

Prevalence of PCOS in Various Populations of Women



* Dunaif A, et al. *Annu Rev Med.* 2001;52:401-419.
 ** Franks S. *N Engl J Med.* 1995;333:853-861.
 † Duncan S. *Epilepsia.* 2001;42(suppl 3):60-65.
 ‡ Herzog AG, et al. *Epilepsia.* 2001;42:311-315.

No Association Found Between PCOS and Valproate or Carbamazepine Therapy



Bauer J, et al. *Epilepsy Res.* 2000;41:163-167.

Studies of Overweight and Obesity in Bipolar Disorder

- 89 outpatients with BP I; female patients had significantly higher rates of overweight (44% vs. 25%) and obesity (20% vs. 13%) than female community control subjects; male patients had significantly higher rates of obesity (19% vs. 10%)

Elmslie JL, et al. *J Clin Psychiatry.* 2000; 61:179-184.

Studies of Overweight and Obesity in Bipolar Disorder

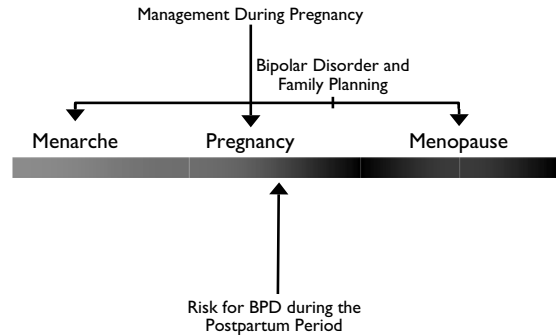
- 664 outpatients with BP I, II; 31% overweight, 21% obese, 5% extremely obese; female patients had significantly higher rates of obesity and extreme obesity, but lower rates of overweight than NHANES III population; male patients had higher rates of overweight and obesity, but not extreme obesity¹
- 50 outpatients with BP I; 36% overweight and 32% obese²
- 175 outpatients with BP I; 35% obese³

1. McElroy SL, et al. *J Clin Psychiatry.* 2002; 63: 207-213.
 2. Fagioli A, et al. *J Clin Psychiatry.* 2002; 63: 528-533.
 3. Fagioli A, et al. *Am J Psychiatry.* 2003; 160: 112-117.

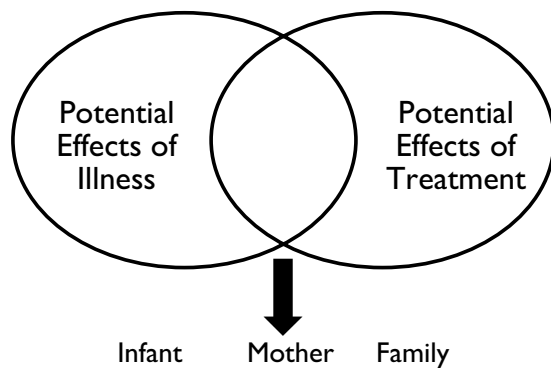
AED Selection Reproductive Phase

- AED of choice is the one most appropriate for seizure type/syndrome
- AED monotherapy—lowest dose possible
- Obtain seizure control or mania control
- Consider AED withdrawal if seizure free for 2-5 years
- Folic acid supplementation
- Discuss contraception methods

Bipolar Disorder Across the Female Reproductive Cycle



Risk/Benefit Assessment

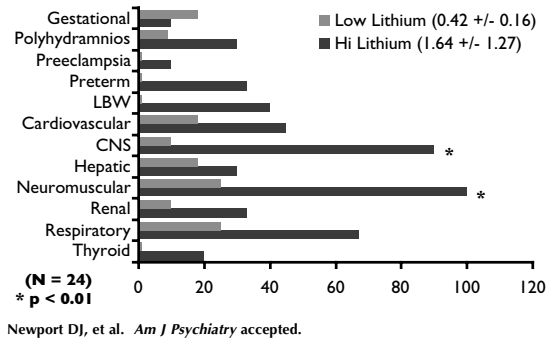


Lithium

- Lithium registry data 1970s
 - Identified risk for Ebstein's anomaly (< 0.1%)*
- Delivery complications
 - Cyanosis, hypotonia, atrial flutter, bradycardia, fetal diabetes insipidus, hydronephrosis, fluid retention, neonatal hypoglycemia, neonatal goiter
- Neurobehavioral outcome
 - No adverse sequelae in school age kids (**N = 60**)**
- Pharmacokinetics: glomerular filtration rate increases → dose increases
- Breastfeeding
 - incompatible with lactation per American Academy of Pediatrics

* Cohen LS, et al. *JAMA*. 1994; 271: 146-150.
 ** Schou M. *Acta Psychiatr Scand*. 1976; 54: 193-197.

Lithium Concentration at Delivery and Perinatal Complications



Alternative Pharmacotherapy Options for Bipolar Disorder in Pregnancy

Atypical Antipsychotics

- Olanzapine
- FDA INDICATION
- Risperidone
- FDA INDICATION
- Quetiapine
- FDA INDICATION
- Clozapine
- Ziprasidone
- Aripiprazole

Anticonvulsants / AEDs

- Valproate
- FDA INDICATION
- Carbamazepine
- FDA INDICATION
- Lamotrigine
- FDA INDICATION
- Gabapentin
- Oxcarbazepine
- Tiagabine
- Topiramate
- Zonisamide

AED Selection Pregnancy

- Continue folic acid
- Aggressive seizure control
- Alpha-fetoprotein level 14-16 weeks
- Level II ultrasound 16-19 weeks
- If alpha-fetoprotein or ultrasound abnormal, advocate amniocentesis
- Vitamin K 10mg-20mg/qd 36 weeks

Fetal Anticonvulsant Syndrome

- Major malformations: 4-6% (2x)
- Minor anomalies: 6-20% (2x)
- Intrauterine growth retardation: 7-10%
- Developmental disability: 2-6% (2-6x)
- Microcephaly
- Infant mortality (2x)

Effects of Pregnancy on AED Blood Levels

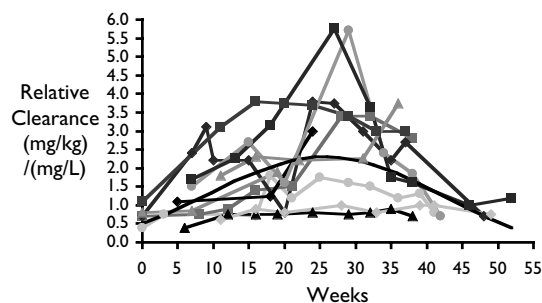
AED	Decreases in Total Concentrations	Decreases in Free Concentrations
PHT	55-61%	18-31%
CBZ	0-42%	0-28%
PB	55%	50%
PRM	55%	--
Derived PB	70%	
VPA	50%	Inconsistent
ESX	Inconsistent	

Lamotrigine

- Lamotrigine Pregnancy Registry (Sep. 2003)
 - Registered cases: **N = 1081**
 - OB outcomes: **N = 693**
 - Monotherapy 2% major defects (**N = 415**)
 - Polytherapy 3.4% major defects (**N = 278**)
 - Polytherapy w/ valproate 10.4% major defects (**N = 67**)
- Neurobehavioral outcomes
 - No alterations at 12 months of age (N = 23)

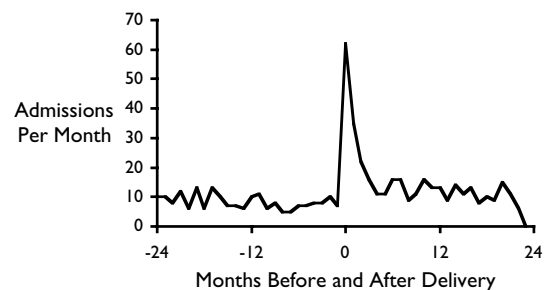
Mackay F, et al. *Epilepsia*. 1997; 38: 881-886.

Lamotrigine Pregnancy Registry



Pennell, et al. *Neurology*. 2004.

Psychiatric Admissions in 2 Years Before and After Delivery



Kendell RE, et al. *Br J Psychiatry*. 1987; 150: 662-673. Presented at 1st Women's Mental Health Congress, Mar 27-31, 2001. Berlin, Germany.

Postpartum Mental Illness

- Postpartum “blues”
 - 50%-70% of adult women within 10-14 days
 - Transient, considered nonpathologic
- Postpartum depression (PPD)
 - 10% of adult women
 - 2/3 have onset by 6 weeks postpartum
 - Serious and disabling
- Postpartum psychosis (PPS)
 - 1-2/1000 live births
 - 70% are affective (bipolar disorder, depression)
 - Medical emergency

Newport DJ, et al. *J Clin Psychiatry*. 2002;63(suppl 7):31-44.

Maternal Depression in the Postpartum and Infant Well-Being

- Impaired attachment / synchrony (24 studies, **N = 2809**)
- Cognitive disturbances (13 studies, **N = 1032**)
- Infant stress responsivity (23 studies, **N = 2192**)
- Infant behavioral changes (26 studies, **N = 10,898**)

Support Breast Milk as Ideal Form of Nutrition

- American Academy of Pediatrics
- American College of Obstetrics and Gynecology
- American Dietetic Association

AED Selection Postpartum

- Discuss infant care risk
- Discuss method of contraception
- If AED dosage increased during pregnancy, monitor for toxicity through 8th week postpartum
- Discuss breast-feeding issues

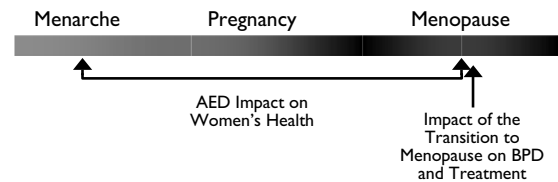


Breastfeeding on AEDs

AED	Breastmilk/Plasma Concentration	Adult $T_{1/2}$	Neonate $T_{1/2}$
CBZ	0.4-0.6	8-25	8-28
PHT	0.2-0.4	12-50	15-105
PB	0.4-0.6	75-126	45-500
ESX	0.9	40-60	40
PRM	0.7-0.9	4-12	7-60
VPA	0.01	6-18	30-60
LTG	0.6		

Adapted from Yerby, Collins.

Bipolar Disorder Across the Female Reproductive Cycle



Menopause

- Seizure frequency reported to increase and decrease
- Increased bone health issues
- Use of hormone replacement therapy controversial

Bone Health

- Established AEDs associated with increased incidence of osteopenia, osteomalacia and fractures
- AEDs may alter bone mineral metabolism
- Effects of older AEDs not definitive
- Effects of new AEDs have not been evaluated

Ethical Issues



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**Raising the Bar for Patient Outcomes:
Expanding Choices in Bipolar
Disorder**

November 10, 2004

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Post-Test

Participants are required to complete the post-test to assess their achievement of the educational objectives for this activity. To obtain a certificate or statement of credit, you must complete the post-test and indicate your answers on the **Post-Test Responses** section found on the credit request form. You must complete both this post-test and the evaluation to receive credit. A score of 70% is required for credit.

Understanding the Challenges of Bipolar Disorder Throughout the Female Life Cycle

- Which of the following factor(s) is/are associated with the poor prognosis of women with bipolar disorder?
 - Delayed age of onset, ages 45-49
 - Longer delays in treatment
 - Higher rates of depression, mixed states, and bipolar II
 - All of the above
 - None of the above
- According to Judd et al. (2002), which of the following series of percentages correctly captures the breakdown of symptom duration among the Bipolar I study subjects?
 - 53% asymptomatic, 32% depressed, 9% cycling/mixed, and 6% manic/hypomanic
 - 32% asymptomatic, 53% depressed, 6% cycling/mixed, and 9% manic/hypomanic
 - 6% asymptomatic, 9% depressed, 32% cycling/mixed, and 53% manic/hypomanic
 - 9% asymptomatic, 6% depressed, 53% cycling/mixed, and 32% manic/hypomanic
 - None of the above
- Which of the following antipsychotic(s) is/are not a common treatment option for managing bipolar depression?
 - Quetiapine
 - Olanzapine
 - Clozapine
 - All of the above
 - None of the above
- True or False: P450-inducing antiepileptic drugs (AED) increase the failure rate of oral, subdermal, and intramuscularly administered contraceptives.
 - True
 - False
- Which of the following AEDs reduces the efficacy of oral contraceptives?
 - Felbamate
 - Tiagabine
 - Valproate
 - Gabapentin
 - All of the above
- Which of the following guidelines should be considered when selecting an AED in younger women who are in the reproductive phase of their lives?
 - Lowest possible dose should be used
 - Therapy should be supplemented with folic acid
 - Contraception should be used (unless patient wants to get pregnant)
 - AED therapy should be discontinued when patient is seizure-free to 2-5 years
 - All of the above
- When selecting an AED for a pregnant female patient, which of the following tests/precautions should be taken?
 - Alpha-fetoprotein level at 14-16 weeks, Level II ultrasound at 16-19 weeks, and amniocentesis if alpha-fetoprotein or ultrasound is abnormal
 - Alpha-fetoprotein level at 4-8 weeks, Level II ultrasound at 12-16 weeks, and amniocentesis if alpha-fetoprotein or ultrasound is abnormal
 - Alpha-fetoprotein level at 20-25 weeks, Level II ultrasound at 32 weeks, and amniocentesis if alpha-fetoprotein or ultrasound is abnormal
 - No amniocentesis under any condition
 - None of the above
- Which of the following characterize post-partum psychosis (PPS)?
 - Occurs in 1-2/1000 live births
 - 70% are affective and indicate bipolar disorder or unipolar depression
 - PPS is considered a medical emergency
 - All of the above
 - None of the above
- True or False: When evaluating the use of AEDs during menopause, hormone replacement therapy is considered first-line prophylactic therapy.
 - True
 - False
- With respect to bone health, AEDs are NOT associated with which of the following?
 - Osteogenesis
 - Osteopenia
 - Osteomalacia
 - Fractures
 - None of the above





CE Credit Request Form

Understanding the Challenges of Bipolar Disorder Throughout the Female Life Cycle

A CME/CNE/CEP/NASW/CCMC/CPE Satellite Broadcast

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PLEASE PRINT CLEARLY (Form must be filled out completely to process certificate)

First Name, MI, Last Name: _____

Specialty Area: _____

I am a: ☐ U.S. Licensed Physician ☐ Nurse ☐ Psychologist
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Type of CE credit requested: ☐ CME/Physicians (max. 1.0 _____) ☐ CNE/Nurses (1.2) ☐ CEP/Psychologists (1.0)
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NOTE: Certified Case Managers are only required to complete the attached CCMC Verification of Completion and CE Activity Evaluation Forms to receive credit. CCMs should only use this form to request additional types of CE credit.

Please see booklet pages 2–3 for credit information and requirements.

How long did it take you to complete this activity? _____ hours _____ minutes

Post-Test Responses (Enter letter of correct response; 70% score required for credit):

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____

How did you learn about this continuing education event?

☐ Brochure/direct mail ☐ Brochure/from rep ☐ Email ☐ Internet ☐ Colleague recommended ☐ Other: _____

Please rate your interest in participating in future psychCME educational activities (1=highly interested, 5=uninterested): _____

What formats do you prefer for learning? (Please rank the top three; 1 = most preferred):

_____ Symposium _____ Audioconference _____ Internet _____ CD-ROM
_____ Journal _____ Satellite Broadcast _____ Monograph _____ Other: _____

As a result of my participation in this activity, I will commit to:

- Sharing information from this activity with staff and colleagues. ☐ Yes ☐ No
- Utilizing the assessment tools described in this activity to develop an individualized management/care plan for each of my patients. ☐ Yes ☐ No
- Analyzing overall improvement in patient management/care through use of the therapeutic options described in this activity. ☐ Yes ☐ No

Commercial supporters occasionally ask for a participant list (name, city, state) for internal outcomes research only. No promotional materials will be sent to you as a result of being on this list.

☐ Do not include my name on this list.

Signature: _____ Date: _____



CE Activity Evaluation

Understanding the Challenges of Bipolar Disorder Throughout the Female Life Cycle

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1. The content level was: ☐ Too easy ☐ About right ☐ Too difficult

Strongly Agree Strongly Disagree

- | | | | | | |
|---|---|---|---|---|---|
| 2. Objectives were related to the overall purpose/goal of the activity (to evaluate potential therapeutic options available to treat bipolar disorder in women based on associated risk-benefit assessments). | 5 | 4 | 3 | 2 | 1 |
| 3. The course met the stated objectives: | | | | | |
| • Review the symptom relief provided by lithium, atypical antipsychotics, and AEDs in female patients with bipolar disorder. | 5 | 4 | 3 | 2 | 1 |
| • Discuss the metabolic risk and potential weight gain posed by atypical antipsychotics compared to AEDs. | 5 | 4 | 3 | 2 | 1 |
| • Analyze the effect of AEDs on female health and reproductive function (menstrual abnormalities, birth control, PCOS, pregnancy, postpartum) and on bone health. | 5 | 4 | 3 | 2 | 1 |
| • Implement a standardized approach to treating women with bipolar disorder to effectively relieve symptoms and minimize risk and adverse events. | 5 | 4 | 3 | 2 | 1 |
| 4. The educational materials were useful. | 5 | 4 | 3 | 2 | 1 |
| 5. The visual aids were useful and appropriate. | 5 | 4 | 3 | 2 | 1 |
| 6. The overall activity was excellent. | 5 | 4 | 3 | 2 | 1 |
| 7. The physical environment/format was conducive to learning. | 5 | 4 | 3 | 2 | 1 |

8. Rate the quality of the faculty member(s) listed below, from 5 (Excellent) to 1 (Poor):

Speaker	Content	Clinical Relevance	Teaching Strategies	Level of Expertise
Deborah T. Combs Cantrell, MD, PA	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
Zachary Stowe, MD	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1
Prakash S. Masand, MD	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1

9. Will you change the way you practice based on this activity? ☐ Yes ☐ No

If no, is it because you already practice this way? ☐ Yes ☐ No

If no, please explain: _____

10. Do you feel the activity was balanced and objective? ☐ Yes ☐ No

If no, please state reasons: _____

11. Do you feel the activity was free of commercial bias? ☐ Yes ☐ No

If no, did it negatively impact the educational value of this activity? ☐ Yes ☐ No

If yes, please state reasons: _____

12. What was the most useful information you gained from this activity? _____

13. Suggested topics for future activities: _____

14. General comments/suggestions: _____

15. I participated in a: ☐ LIVE broadcast ☐ LIVE webcast ☐ LIVE audio feed ☐ Internet archive ☐ Rebroadcast/Videotape

16. Participation date: _____ / _____ / _____

17. I am a: ☐ U.S. Licensed Physician ☐ Nurse ☐ Psychologist
☐ Social Worker ☐ Case Manager ☐ Pharmacist ☐ Other: _____

Thank you for your feedback. Your comments will be reviewed carefully and ultimately used to guide the development of our future continuing education activities.



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CCMC

VERIFICATION OF COMPLETION (Please Print or Type All Information)

SPONSOR INFORMATION (To be completed by program/activity sponsor.)

CME Outfitters LLC
Sponsoring Organization
6903 Rockledge Dr - 8FL
Street Address
Bethesda MD 20817
City/State/Zip Code

00063520
Sponsor Code
Richard Vanderpool
Contact Person
301.214.8972
Phone Number for Contact Person

PROGRAM/ACTIVITY INFORMATION (To be completed by program/activity sponsor.)

Understanding the Challenges of Bipolar Disorder Throughout the Female Life Cycle - various 2004
Program/Activity Title
Through 12/31/04
Program/Activity Date or Date of Completion
6352025515
Approval Number
Signature of Individual in Charge of Verifying Attendance/Completion
1.00
Clock Hours Attended/Completed
10/27/04
Date of Signature

PARTICIPANT INFORMATION (To be completed by participant prior to submission.)

Name
Street Address
City/State/Zip Code

Certificate Number
Daytime Telephone Number

To have these clock hours added to your CCM certification file, please send a copy of this form to **CCMC, 1835 Rohlwing Road, Suite D, Rolling Meadows, IL 60008**. It is best to submit this documentation as activities are completed or at least on an annual basis. This form is for pre-approval by CCMC only and will only be added to your certification file with them. If you hold certification from other organizations, you will need to submit verification of attendance/completion according to their requirements.



psychCME TV Satellite Broadcast Attendance Form for Groups

Please complete and FAX to **301.897.3506**

Broadcast Title and Faculty:

Understanding the Challenges of Bipolar Disorder Throughout the Female Life Cycle
with Deborah T. Combs Cantrell, MD, PA, Zachary Stowe, MD, and Prakash S. Masand, MD

Site/Institution Name: _____

Practice Setting: ☐ Community Mental Health ☐ State Mental Health ☐ Private Practice ☐ Primary Care ☐ Other: _____

Address: _____

City: _____ State: _____ ZIP: _____

Site Coordinator: _____ Phone: _____

Fax: _____ Email: _____

☐ Check here to receive a free CD-ROM of this CE activity.

Attendee Name	Please Circle Discipline			
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____
_____	MD	RN	Pharm	Other: _____

Please FAX completed form to 301.897.3506 and use additional sheets as necessary.
Questions? Call 877.CME.PROS. Thank you for participating in psychCME TV!